

# ARMY NAVY

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## PERSONAL ITEMS.

CAPT. G. W. Crabb, 5th U. S. Artillery, late of Fort Niagara, has settled his battery into quarters at Fort Wadsworth, N. Y. H. The change is enjoyed by officers and men. Lieut. Whistler is expected in a week or two from Fort Niagara.

CAPT. D. H. Kinzie, 5th U. S. Artillery, has got settled at Fort Schuyler, N. Y. H. The men, we are told, don't like Schuyler as well as Plattsburg.

ADJUTANT A. B. Dyer, of the 4th U. S. Artillery, rejoined at Fort Adams, R. I., September 29d, from a week's leave.

CAPT. R. H. Hall, 10th U. S. Infantry, rejoined at Fort Porter, N. Y., early in the week from a month's leave.

CAPT. C. B. Throckmorton, 4th U. S. Artillery, has taken command of Fort Adams, R. I., under his recent orders, and finds less spare time on his hands than at Fort Proble, his former post.

MAJOR H. W. Oleson, 5th U. S. Artillery, has arrived at Fort Wadsworth from Fort Niagara, N. Y., and been warmly welcomed by his many old friends in this vicinity, acquired while serving at Fort Hamilton as Captain of the 1st U. S. Artillery.

CAPT. Mayne Reid, the English writer, whose works are so familiar to the youth of Great Britain and America, has been at last placed on the pension list of the United States, for services in the war with Mexico, in the 2d New York Volunteers (General Ward Burnett's regiment). He was severely wounded at Chapultepec.

LIEUT. Thomas T. Knox, 1st U. S. Cavalry, has been selected to succeed Capt. Hartley as assistant at Washington to Col. R. N. Scott, U. S. A., in the preparation of the official records of the rebellion.

LIEUT. H. G. Sichel, 7th U. S. Cav., has returned to Fort Sisseton, D. T., from an official trip to Fort Snelling.

MAJOR W. W. Sanders, U. S. A., Gen. Terry's Inspector, is visiting Fort Pembina, D. T., on an official inspection tour.

It is expected that Commodore Charles H. Baldwin, U. S. N., will take command of the European Station next year on his promotion to Rear Admiral.

CAPT. Theodore Schwan, 11th U. S. Infantry, for some time past on duty at David's Island, will shortly join his company at Fort Leavenworth, Kansas.

REAR Admiral Donald Fairfax, U. S. N., lately residing in Philadelphia, has taken a house in Washington, on I street.

ON the recent visit of the Emperor of Austria to Trieste, he was accorded a grand reception, at which Rear Admiral Nicholson and the officers of the *Lancaster* were present.

INSPECTOR General Roger Jones, U. S. A., visited Forts Brady and Mackinac, Mich., this week, and looked into the welfare of those posts.

GEN. N. W. Brown, U. S. A., visited his old friends in New York, this week, stopping at the Gilsey House.

REAR Admiral J. J. Almy, U. S. N., registered this week at the Sturtevant House, New York city.

SURGEON General Ogilvy, Commissary General Ralph and Major Chatfield, of the British army, were guests at the Windsor Hotel, New York, this week.

ASSISTANT Surgeons T. J. C. Maddox, and J. S. McLain, U. S. A., have reported at Fort Brown, for duty, and are doing their best for the yellow fever patients.

THE health of Lieut. J. T. Morrison, adjutant of the 10th U. S. Cavalry, now North on leave, is likely to prevent his return to Texas for several months to come.

PAYMASTER G. W. Candee, U. S. A., has relinquished duty at Washington under Gen. Rochester, and goes to Chicago for duty under Lieut.-Gen. Sheridan.

SURGEON A. K. Smith, U. S. A., Gen. Crook's medical director, is not likely to return to Arizona for some months to come, as his health is poor.

MUCH sympathy has been expressed with the bereavement of Passed Assistant Engineer Herschel Main, U. S. N., in the recent death of his infant son.

CAPT. L. O. Forsyth, assistant quartermaster U. S. A., returned to Fort Porter this week from the funeral of his deceased sister at Washington, Mrs. Thomas Antisell, wife of Doctor Antisell.

LIEUT. Chas. Smith, 8th U. S. Infantry, recently appointed from the 3d U. S. Artillery, is en route to join his regiment at Fort Halleck, Nevada.

THE *Helena Herald* of September 7th says: "Brig.-Gen. W. S. Harney, U. S. A., a veteran whose services on the frontier have made his name a household word throughout the Rocky Mountain region from Montana to the Rio Grande, arrived a few days since at Miles City. It is needless to say that officers and citizens vied in extending every possible courtesy to the distinguished soldier."

LIEUT. James B. Erwin, 4th U. S. Cavalry, registered in Savannah, Ga., recently, on a visit to his parents.

ENGINEER A. M. Mattice, U. S. N., recently relieved from duty at the Naval Academy, is visiting friends at Atlanta, Ga.

MAJOR M. A. Cochran, 12th U. S. Infantry, arrived early this week at Fort Niagara, N. Y., from Arizona.

AMONGST the weddings soon to take place is that of Mr. Lanier Dunn, son of Gen. W. McK. Dunn, U. S. A., to Miss Hurd, at Washington.

DOCTOR J. H. Collins, U. S. A., of Fort Union, N. M., is soon to be married to Miss Genevieve La Tourette, daughter of Chaplain J. A. M. La Tourette, U. S. A.

Mrs. Flipper, late of the Army, is reported as denying the story that he is a captain in the Mexican army or that he ever expects to be.

LIEUT. Chas. E. Bottsford, 10th Infantry, expects to leave Fort Wayne, Michigan, early next week on a month's leave.

MAJ. Merritt Barber, of the Adjutant-General's Department, U. S. A., is spending a portion of his vacation in Vermont. He will return to Washington in October.

CAPT. W. L. Kellogg, 10th Infantry, rejoined at Fort Wayne, Michigan, this week from a brief vacation.

CAPT. Chas. O. Bradley, 20th U. S. Infantry, on leave for some time past in the East, is expected to return to Fort Reno, I. T., the latter part of September.

GEN. O. B. Willcox, U. S. A., arrived at Madison Barracks, N. Y., early in the week, and is busy settling his command into their new quarters.

CAPT. Robert Pollock, 21st U. S. Infantry, has left Fort Townsend, Washington Territory, for the east, to go on recruiting duty.

LIEUT. L. M. Brett, 2d U. S. Cavalry, of Fort Maginnis, Montana, will start for the east in October on a four months' leave.

LIEUT. John K. Waring, 2d U. S. Infantry, lately on an official trip to Vancouver Barracks, has returned to Fort Cour D'Alene.

DR. W. W. Crane, U. S. A., has joined for duty at Fort Walla Walla, Washington Territory.

ASST. SURG. G. E. Bushnell, U. S. A., of Fort Ellis, Montana, is visiting the east on a month's leave.

PAYMASTER J. P. Willard, U. S. A., of Fort Meade, Dakota, is visiting the east to remain for several weeks.

DR. James M. Craigbill, U. S. A., has left Fort Snelling and gone to the Camp of Troop D, 2d Cavalry, at the mouth of Boulder Creek, Montana.

LIEUT. Geo. H. Roach, 17th Infantry, of Fort Sisseton, has been on a visit to Fort Snelling, Minn., in connection with a General Court-martial sitting at the latter post.

LIEUT. Col. R. E. A. Crofton, 13th U. S. Infantry, on leave from Fort Wingate, New Mexico, will not rejoin there until late in November or early in December. He visited New York this week, and took a run over to Governor's Island to see the old familiar spot. While in New York he stopped at 37 East 9th street.

LIEUT. O. S. Hall, 13th U. S. Infantry, of Fort Cummings, N. M., will shortly come east to remain until after New Year's.

MAJOR W. M. Graham, 4th U. S. Artillery, has assumed command of Fort Proble, Me., and finds his duties easier than at Madison Barracks.

CAPT. L. C. Forsyth, U. S. A., of Buffalo, paid a visit to Fort Porter this week on Court-martial service.

ADJT. E. R. Hills, 5th U. S. Artillery, supplemented his duties this week with those of Judge Advocate of a General Court-martial sitting at Fort Hamilton, N. Y. H.

GEN. Richard Arnold, U. S. A., having recovered from his recent indisposition, paid official visits to Forts Schuyler and Hamilton this week and inspected men and material.

CAPT. M. H. Stacey, 12th U. S. Infantry, arrived at Plattsburg Barracks, N. Y., September 17, and is busy settling Cos. H and I into quarters. All appreciate the change from Arizona.

LIEUT. Israel Greene, who commanded the detachment of United States Marines which battered down the door of the engine house and captured John Brown, at Harper's Ferry, is now a plain farmer living near Firesteel, Dak. He left the Marine Corps in 1861 after a service of 14 years.

ON the morning that the bombardment of Alexandria began Capt. H. C. Cochrane, of the United States Marine Corps, procured from Arabi the following, which was written in the captain's autograph album: "It is my own handwriting. I send it to my dear friend Gen. Grant, the American, as a remembrance to him and to all Americans in general, and as a token of friendship and of the commercial relationship between the Americans and Egyptians, the 22d Shaban, 1299, the date of the Hegira, corresponding with the 8th July, 1883, Christian era.—ACHMET ARABI."

DANIEL SIMPSON, who celebrates his 92d birthday the 26th of this month, has presented to the Bostonian Society of Boston "a drum that was beat in the battle of Bunker Hill, by John Robbins (I knew him well; and have used it considerably myself), and an oil portrait of myself and the same drum painted by Darius Cobb (a most worthy gentleman who spent much time and labor to make it a good portrait of me, and my friends think it very good)."

LADY Hannah Shepherd Havelock, the widow of Major-Gen. Sir Henry Havelock, the captor of Lucknow, recently died at her residence in Kensington Palace Gardens, London. She was a daughter of Rev. Dr. Joshua Marshman, of the Baptist mission of Serampore. Parliament settled upon her a pension of £1,000 a year in recognition of the eminent services rendered by her famous husband, and she was specially raised to the rank of a baronet's widow, with the same

effect as if her distinguished husband had lived to receive the baronetcy conferred upon him. The baronetcy was, however, renewed to their son. An interesting list of British annuities and pensions has just been issued. Over and above payments of the civil list, members of the royal family receive £161,000. For pensions for naval and military services the government pays £38,166; for political and civil services, £20,434; for judicial services in Great Britain, £41,235; for judicial services in Ireland, £22,467; for diplomatic services, £8,173; miscellaneous pensions, £9,095; and hereditary pensions, £6,184. Of naval and military pensions the £5,000 of Earl Nelson and the £4,000 of the Duke of Marlborough are intended to run to the end of time, like the £984 of the Duke of Schomberg's heirs, the £1,200 of the heirs of Captain Garth, and the £4,000 to the heirs of William Penn. The Duke of Wellington's £2,000 ceases after the death of the next holder of the title. Lord Eversley draws £4,000, Lady Elgin £1,000, Lady Mayo £1,000, Mr. Milner Gibson £2,000, Mr. Spencer Walpole £2,000, Lord Clarence Paget £1,950, Mr. Charles Villiers £1,950, Earl Cairns £5,000, and six retired judges and a number of ex-county court judges draw various sums.

COL. H. G. Litchfield, U. S. A., is to be complimented on the energetic manner in which he has given attention to his multifarious duties in connection with the late rifle competitions at Creedmoor.

REAR ADMIRAL T. H. Stevens, U. S. N., registered at the Grand Hotel, New York, early this week.

PROF. Clinton Wagner, of New York, who resigned from the Army July 28, 1866, being then a major and surgeon, was married at London, England, Aug. 28, to Miss Vaughn, of Portland, Oregon. Amongst those present at the wedding were Major L. S. Babbitt, U. S. A., and Mrs. Babbitt.

PAYMASTER J. P. Canby, U. S. A., now in Chicago, will establish his office at Portland, Oregon, about the middle of October.

LIEUT. J. W. Pinder, 8th Cavalry, for some time past North on leave, will return to Texas the latter part of next month.

DR. J. C. McGuire, U. S. A., has returned to Fort Ellis from detached duty at Boulder Creek, Montana.

AFRONSOS of the recent marriage of Gen. A. G. Brackett, U. S. A., to Mrs. Knight, announced in the JOURNAL of last week, the *Cheyenne Leader* says: "We sincerely trust that the rumor is true; indeed, many of the general's military friends concede its entire truth. The general has been transferred from active duty in the field to the command of Jefferson Barracks, Mo., but he will, of course, continue to be on active duty. The general is too active a man, mentally and physically, to lead an easy life at Jefferson Barracks, and he will therefore actively engage in the duties of fitting recruits for the field and in improving the beauty of the place. Upon condition of the rumor proving true the *Leader* congratulates Gen. Brackett and his charming bride and trusts that the happy couple may enjoy a long life of wedded bliss and crown their ripe years of the future with sweet garlands of love, a family of bounding girls and romping boys."

REAR-ADMIRAL J. R. M. Mullany, U. S. N., has left Bryn Mawr, Penn., and has gone to his home in Philadelphia, Pa.

THE British team paid a visit to West Point Sept. 18, accompanied by many National Guard officers. Lieut.-Col. John Hamilton, of the 5th U. S. Artillery, also accompanied them, and added to the enjoyment of the occasion by taking along his regimental band. On arrival at West Point the party was received by Gen. Merritt and his staff, and paid a visit to the commandant's quarters. A tour of the post was then made, after which a dress parade and review of the cadets took place. The team and their friends returned to New York late in the evening, heartily pleased with their visit to our National Military Academy.

COMMO. Earl English, U. S. N., visited New York this week, registering at the Grand Hotel.

LIEUTS. C. W. Abbott and E. H. Brooks, U. S. A., rendered valuable aid at an accident which occurred a few days ago at Fort Leavenworth, by a runaway team, which dragged the vehicle in which were Mr. Spencer and Miss Allen, visitors to the Fort, over an embankment. The lady died from the injuries, and those of Mr. Spencer are deemed to be fatal.

GEN. W. T. Sherman, U. S. A., and party passed the night of September 16 on the summit of Mount Washington. They are said to have had a high cold time.

CAPT. F. B. Hamilton, 2d Artillery, returned to Governor's Island this week from the Oriole celebration, to finish up his rifle business before rejoining at Gaithersburg.

LIEUT. Col. W. B. Royall, 3d Cavalry, has been assigned by General Crook to duty at Whipple barracks.

DR. H. C. Sawyer, U. S. A., has joined at Fort McDowell, A. T., for duty.

CAPT. W. L. Foulk, 6th Cavalry, has relinquished command of his troop and gone to Fort Yuma, California, to await orders.

LIEUT. Hugh L. Scott, 7th Cavalry, of Fort Totten, D. T., is visiting the East on a month's leave.

THE retirement of Major General McDowell, U. S. A., will now soon be in order, and he will be succeeded in the command of the Division of the Pacific and Department of California, by Major Gen. Schofield.











## THE FIELD ARTILLERY.

To the Editor of the Army and Navy Journal:

I AM glad to see that something is calling attention to that very much neglected branch of our arm, the field artillery.

"Progress" and "One Battery" are good as far as they go, but they only hint at changes that must be effected ere this arm can take its past relative place with the small arms of the infantry.

I am aware that Prussia thrust forward its artillery as a diverting target to protect its deployed infantry lines. Considering the numbers the light batteries killed and the number of them killed, the only object must have been to divert the French fire from the infantry. Now, I claim a fair share of patriotism, but I am free to confess that personally I would not like to be used for that purpose; though once I was at Port Royal Ferry; and having been there I am able to say that I do not like it.

If this is to be the future of light artillery, to be put forward as a costly target to draw the fire of the enemy off the real attack, it would be well for the public purse and humane to the horses to cheapen the target.

But as Europe has not discarded its field artillery, it is fair to presume that it is not yet convinced of its inability as an arm of attack. We see great activity in improving pointing, missiles, and calibre. Some British officers have had the temerity to say that without skill in fire light artillery is useless. Capt. Chester of the 3d has ventured to extend the remark to all artillery.

Would some light artillery officer enlighten us through the JOURNAL as to what is being done in this arm to perfect us in accuracy, speed of fire, velocity, weight of missile, reliability in fuzes? What monthly reports of target practice are required at a central bureau, condensed, digested, and published for the use of the Army? What in excess of the regular allowance of ammunition is expended annually in practice (as is done in the infantry small arms)? What kind of practice ranges are provided for the batteries? What are the useful effects at the different ranges for the various missiles provided us in comparison with European artillery? What are the best dispositions when we are thrown forward to lead on the skirmish line of infantry? How many points on their new buckhorn sights do they allow for a ten knot breeze? (I fired last week at 4,500 yards and with a sight of 18 sec. and a well laid gun a 15 in. shell deviated about 150 yards—the length of the City of Rome, no? Luckily Zalinski is doing something for us in this matter, but his buckhorn, it is feared, will be "too complicated" for the Ordnance Department. Let us have practice and nothing will be too complicated.) What means do they take to insure uniformity in initial velocity? What improvements in centre engaging the shot and baro-symmetrizing it?

These things are seriously considered for 300 yards in small arms, but I have not heard of them (in our service) for an arm of from 1,500 to, what should be 3,500 yards, *ports*. What improvements have we demanded from the Ordnance Department or general inventors in the matter of fuzes? It is useless to find fault if we can't point out our wants specifically. The Ordnance can't get money for their own trials of heavy guns, why should we expect an interest in the light artillery without we make patent our wants?

It is not conducive to progress in light artillery skill to have captains separated—jealous of each other, of any attempt at brigading them, of any reorganization that would bring them direct under a field officer in a common system. This is human nature. Attached separately to the mews of a headquarters, mowing along from year to year with fat horses and a wagonmaster's drill, a long march or a slight prick the bladder. Since Ringgold, or Bragg, or Duncan, or Sherman, down to Smith (impersonal entirely), you will find great opposition to brigading, for the attachment to regimental headquarters only gives a nominal command to the colonel. Should he interfere in the professional part of the economy of the battery, it will then have two captains. Colonels are too proud, or indifferent, or think it too insignificant a branch to hold communion with each other about its government or improvement, so that outside of ordinary military police routine the light battery is an independent command: that is, it would be were it not for its heterogeneousness. It is constantly grinding against the foot batteries. Its drill hours must needs be different, so that the assembly in the mixed garrison is sounding at all hours of the day. Its men are more heavily worked than the "foot," and this is a stimulant to desertion. The foot men feel that they are required to do some of the light battery's police, and this keeps up some personal feeling between the branches that does not find its vent through emulation in any common duty.

While at Riley (referred to by "One Battery,") the *volantes* proved themselves self-sustaining without prejudice to their military duties, though Spencer carbines would occasionally go off, just for fun, in the guard house.

Since we can't have a special chief to our arm, would it not be well to give us a branch department or desk in Washington? We have an unexceptionable representative on the general's staff, and though too old for a chief, his military acquirements and personal character eminently fit him for marking us out a system, and, what is of more importance, for holding us to account for its execution.

We, artillerymen, pardon us, ye numerous infantry, are a little tired of having all our duties revolve around the ultimate bull's-eyes at Creedmoor. Let us make a few in our bays, harbors, and at the range of the light artillery brigade.

JNO. HAMILTON, Lieut.-Col. 5th Artillery.

INDEPENDENCE Day in Mexico, September 16, was very generally observed. At Monterey the public ceremonies were on a grand scale.

## THE REVENUE MARINE AND THE NAVY.

To the Editor of the Army and Navy Journal:

Your editorial relative to the United States Revenue Marine being utilized as an additional avenue for the advancement of the younger officers of the Navy, and the gradual absorption of the corps into the larger service, demands a reply in justice to the Revenue Marine which, in point of organization, leads the Navy by seven years.

It has been in active operation for nearly a century; embraces in its scroll of fame men who won for themselves honor and distinction in the Continental Navy, and who were largely instrumental in establishing the ability of the young, new-born nation to compete successfully with Great Britain, the acknowledged mistress of the seas. It has created for itself a record and reputation that can be reviewed with pride and satisfaction, while merchants and underwriters, wrecked seamen and hapless women and children rescued from the dangers of the deep, will add their testimony to the value and importance of the United States Revenue Marine. Although under the control of the Treasury Department, it is essentially a military service, and is the naval executive arm of the Treasury Department. Its armament, discipline, organization, drills and general scope are closely allied to the Navy, with which it has co-operated as a distinctive branch of the Government in all the wars that have assailed the country.

From time to time the duties of the service has been increased and its field of operations extended until from merely acting as an additional security for the protection of the revenue, numerous important trusts have been entrusted to its care. In time of peace it suppresses smuggling, assists in enforcing quarantine and the neutrality laws, aids the civil authorities in capturing criminals arriving from Europe, subdues routines, fires and piracy, enforces obedience to all the laws governing commerce, looks after the interests of the Government in relation to timber lands, buoys that have been misplaced, and that keepers of light-houses discharge effectively their duties. The vast interests of the fur seal islands fall under the protection of the Revenue Marine, while the life-saving service, famed all over the world for its worth and wonderful efficiency, owes its value and organization in great part to the officers of the Revenue Marine service, who are detailed to watch over and direct its workings. It was a despised, decayed, useless and neglected branch of the Government, in a hopeless state of inactivity when taken hold of by the present Superintendent, at the time Chief of the Revenue Marine Bureau. Now it may well challenge comparison with the National Lifeboat Institution of England and the storm-warriors of any civilized nation. In its infancy, when struggling in the sloughs of indifference, with but a limited local and worthless reputation, it failed to attract the attention or support of other departments, but within a few years the Navy has endeavored to wrest from the Revenue Marine the fruits of its patient, laborious and dangerous creation, and substitute their officers and men. In justice it belongs to the care of the Treasury Department, and in honor it should continue to be left under the control and discipline of those who made it what it is.

The Revenue Marine is the coast guard of the country, and with a fleet of 86 vessels, keep vigilant watch and ward over 3,000 miles of sea coast, enveloped in dangers, and hidden obstacles to navigation, through which the revenue cutters thread their way, in all weathers, with unerring accuracy. With a personnel of less than a thousand officers and men, the service in 1881 cruised 300,000 miles, boarded and examined 30,000 vessels, seized or reported over 3,000 for violation of laws, rescued 145 vessels in distress, valued at \$3,000,000, and saved 141 lives.

With such a record, the Revenue Marine certainly has some claims upon the gratitude and generosity of the country, and should continue to be officered, not by young graduates of Annapolis, but practical, cool-headed seamen, who have achieved successes in battling with the elements, and established the reputation and renown of the service from Maine to Texas. They have had the hard work, the danger and exposure, they are entitled to the honor and the continuance of a distinct organization.

If the Revenue Marine, on the score of economy, should be merged into the Navy, why not go further, abolish the Marine Corps with their barracks and military paraphernalia, and substitute details of soldiers from the Army. It would be a great saving, and is as practical as transferring the Revenue Marine, and tempered with as much justice in the proposition.

The experiment of allowing naval officers to serve on board of revenue cutters, has been tried in years gone by, and proved a dismal failure. Much trouble and controversy was the result, the duties proving distasteful, while the authority vested in Collectors of Customs, as civilian officials, did not coincide with the military training of the naval officer. There was a lukewarmness in diligently carrying out orders emanating from custom officials, and in consequence, President Jackson directed that naval officers must return to their own branch of the service, or resign their commissions before accepting one in the Revenue Marine.

The Revenue Marine service can, without fear, compare notes with the "popular branch of the public service" in the number of vessels lost, as well as services rendered, ranging from the successful Arctic cruiser, which was neither lost or burned, to relief extended to yellow fever sufferers along the shores of the Gulf of Mexico. The *Chase*, in addition to fulfilling the requirements of a practice vessel, also discharges the duties of a revenue cutter, and both are combined with out additional expense to the Government.

Your proposed disposition of the officers of the Revenue Marine upon the Navy list, under a distinctive head, and out of the line of promotion, is anything but complimentary. Is there fear of contamination, are the gentlemen pariahs, that they should be hedged off

in the manner proposed? Are they inferior in social, mental, or professional qualifications, that they should be placed beyond the reward of promotion? Surely, the tone of the service must have retrograded at a tremendous pace since the period when the present Vice Admiral of the Navy did not consider it beneath his dignity to act as a lieutenant and fulfil the duties on board a revenue cutter!

The service has no need or relish for any such style of patronage. It can afford to base its claims upon what has already been achieved, willing to abide the action of Congress in recognizing its just demands upon merit alone, without fear of being engulfed by the Navy.

"Proper examining boards should pass upon the qualifications of each officer for promotion, as in the naval service," etc.

If the editor of the ARMY AND NAVY JOURNAL would take the trouble to examine the scope of matter embodied in the examination of a Revenue Marine lieutenant, he would find no fault relative to quantity or quality. The examinations from first lieutenant to cadet are searching, rigid and fair, based upon the competition and written system, the best the service has ever known.

The truth is stated, when you assert that some of the younger officers would not like to serve under the present Revenue Marine. Probably not. The Revenue Marine is no ornamental corps. It means work, and lives can not be saved, or \$3,000,000 of property wrested from the angry seas, by attending quadrille parties, or whispering soft nothings in the ears of languishing fair ones. Running hawvers cased in ice to wrecks surrounded by breakers produce a damaging effect to kid gloves, broadcloth and gold lace.

There is no necessity of a Rear Admiral or Commodore to look after the interests or workings of the service. They could not begin to meet the requirements on an appropriation of \$750,000, which is all that is asked for under the present able management. The two services are distinct, and for the sake of economy and the faithful performance of the public service should remain so. All that the Revenue Marine requires to place it upon a fair footing, is an increase of rank above the grade of captain, a retired list and longevity pay to which, from its military character and record, it is as much entitled as the Army, Navy or Marine Corps. These will come in good time, the seed that has been planted has taken root, and while the Navy cruises off shore, bearing the flag to foreign climes, upholding the dignity of America abroad, the Revenue Marine, manned by its own officers, with its own distinctive features and individuality, will look faithfully to all matters "on soundings" as well as off, and stand by to accord a welcoming salute to all men-of-war bearing the Stars and Stripes returning from a foreign cruise.

UNION JACK.

## THE COUNTERSIGN.

'Twas near the break of day, but still  
The moon was shining brightly;  
The west wind as it passed the flowers  
Set each one swaying lightly;  
The sentry slow paced to and fro,  
A faithful night watch keeping,  
While in their tents behind him stretched  
His comrades; all were sleeping.

Slow to and fro the sentry paced,  
His musket on his shoulder,  
But not a thought of death or war  
Was with the brave young soldier.  
Ah, no! his heart was far away  
Where, on a western prairie  
A rose-tinted cottage stood. That night  
The countersign was "Mary."

And there his own true love he saw,  
Her blue eyes kindly beaming;  
Above them, on her sun-kissed brow,  
Her curls like sunshine gleaming.  
And heard her singing, as she churned  
Her butter in the dairy,  
The son she loved the best. That night  
The countersign was "Mary."

"Oh, for one kiss from her!" he sighed,  
When up the lone road glancing,  
He spied a slender little form,  
With faltering steps advancing;  
And as it neared him silently  
He gazed at it in wonder;  
Then he dropped his musket to his hand,  
And challenged, "Who goes yonder?"

Still on it came. "Not one step more,  
Be you man, child, or fairy,  
Unless you give the countersign.  
Halt! 'Who goes there?' " "Tis Mary."  
A sweet voice cried, and in his arms  
The girl he left behind him  
Halt fainting fell. O'er many miles  
She'd bravely toiled to find him.

"I heard that you were wounded, dear,"  
She sobbed; "my heart was breaking;  
I could not stay a moment, but,  
All other ties forsaking,  
I traveled, and by my grief made strong,  
Kind heaven watching o'er me,  
Until—unsart and well?" "Yes, love,"  
"—At last you stood before me."

"They told me that I could not pass  
The lines to find my lover  
Before day fairly came; but I  
Pressed on o'er night was over,  
And as I told my name I found  
The way free as our prairie.  
"Because, thank God! to-night," he said,  
"The countersign is Mary."

ARRANGEMENTS have been completed for announcing the approach of frost in some of the tobacco-raising States. The Signal Bureau will telegraph to central points and the growers will be informed in all directions by the firing of cannon. This will be the first test of the plan, and will be conducted by the tobacco farmers themselves after the receipt of the despatch from the Weather Bureau in Washington.







length of the bore. . . . The most favorable hypothesis that can be made with grained powder is that the grains are spherical and of uniform size. If the powder be so hard pressed that the gas cannot permeate the grains, and that their diameters undergo equal reduction in equal successive portions of time, it must at the end of half the time required for its total combustion, have consumed one-eighth of the charge; while the shot will have traversed only something more than one-fourth of the bore, supposing the time for total combustion of the charge to be that for the shot to traverse the length of the bore. The gas is evolved in the inverse order of what is should be, giving rise to excessive pressure at and near the seat of the charge, and to too rapid diminution the otherward. This property may be remedied to some degree by increasing the size of the grain, if it be made sufficiently hard to be impermeable to the pressure of the gas when fired. To bring the maximum pressure within proper limits requires so large grains as to either require an inconveniently long gun, or an increase of charge to produce requisite velocities.

The condition of uniformity of pressure along the entire length of the bore would be best originally filled by a cartridge so constructed that ignition should only take place on the interior surfaces of cylinders, and that combustion should increase their radii, equal quantities in equal times. The radii increasing directly as the times, and the area of the cross section of the cylinders, and consequently the volume of gas evolved, being as the squares of the radii, they will also be as the squares of the times, which is analogous to the dynamic conditions of the equation of motion due to a constant accelerating force. ( $S = \frac{1}{2}gt^2$ ). But my experiments on bursting cylinders by pressure show that for short lengths of surface pressed the resistance offered would be greater for a length of two calibres from the bottom, than for one of seven, or any greater length, in the ratio of 3 to 2, to which the pressure of the powder gas should be made to conform. This can be done with perforated cake by establishing the proper relation between the initial burning surface, or between the number and diameter of the cylinder holes and the thickness of the walls between them, or by varying the number and thickness of the cakes in a given charge. The ratio of maximum to mean pressure would also be raised in the same way, as the burning surface extends over the whole surface of the cakes. It will be readily seen that this force of cartridge gives entire control over the rate of combustion of the charge; and that it removes all limit, as regards safety, to the calibre of which guns may be made.

Thus it is seen that Col. Maitland and his predecessors could over twenty years ago have learned from Rodman what is now so widely known and practiced in reference to powder for large guns. In fact we may claim Rodman as the originator of the new ideas concerning military gunpowder. That the English authorities were either ignorant of or ignored this progress, is demonstrated by a glance at "Magendie's Ammunition" (Ed. of 1867), which shows that the powder used in the largest guns, many of which were burst by it, was what was known as "R. L. G." which varied between one-eighth and one quarter inch in diameter. In fact the gunpowder committee of 1866, and Select Ordnance Committee of 1867, were then only recommending "pellet powder," which was analogous to American "Mammoth," which was used throughout the civil war. Rodman, as constructor of ordnance during the war, was constantly employed in looking after the manufacture and proof of guns and projectiles; but his spare moments were given to the study of the manufacture and modification of gun powder, and it is well known he left many ideas and principles concerning it in an unfinished state at his death, which occurred June 7, 1871. The scientific and military world has reason to deeply regret that, for unfathomable reasons of its own, the department to which Gen. Rodman belonged removed him at the close of the war from the scene of his former distinction, and relegated him to the ordinary work of erecting buildings for a new arsenal. Spasmodic attempts were made after his death to resume the powder investigation, but with such indifferent success that we have since been living upon the progress of other nations.

Col. Maitland was also sharply handled in the after discussion by Sir Henry Bessemer, on the adoption by Great Britain, or rather by the Woolwich authorities, of Sir Wm. Armstrong and wrought iron instead of steel. It appears that just previous to that time Col. Eardly Wilmot, R. A., a free and strong thinker, was Superintendent of the Woolwich works; that Sir Henry had informed him of his early experiments in his conversion process; that the colonel had recognized the value of the discovery, and had lent the facilities of the works in his charge to the development and test of the process, until he had become convinced of the great value of the product in the manufacture of ordnance. That he had taken steps towards introducing the product and process at Woolwich; but that the great national institution, called by Dickens the "Circumlocution office," had interposed, and the colonel was superseded by Mr. Sidney Herbert and Sir William Armstrong. Sir Henry's story of his exit from Woolwich involuntarily carried us back to the hypothetical "Daniel Doyle," who the great novelist caused to be jerked out of the circumlocution office so summarily by "Mr. Meagles."

In this country we are similarly afflicted with a circumlocution office that will vie with its English progenitor in its most successful achievements of "how not to do it." It showed its hand when it refused to allow Rodman to experiment on hollow casting under the auspices of the Government, and again when it removed him from the field of experiment and research in gunpowder. "How not to do it" triumphed when the principle of making all parts of a musket interchangeable, which was introduced and perfected at the National Armory at Harper's Ferry in 1815 by the inventor of Hall's carbine, was so little appreciated as to be allowed to fall into disuse and oblivion, until years

afterwards, when it was reinvented and introduced "by the department" at Springfield. A hand as skilful in the art of "how not to do it" as the senior Barnacle and his adjunct, the young "Tite," was required to suppress and reject, even in the face of Gen. Scott, from 1850 until 1872, so remarkable a proposition, so clearly and forcibly put, as that of Dr. Woodbridge concerning the manufacture of a gun from steel wire soldered together by molten bronze; a method of gun construction eagerly seized upon by the French as soon as heard of, and one that even the "apostle of wrought iron," after spending tens of millions of pounds of Britain's treasure upon costly failures of his own ideas, is glad to take up as a last refuge against the advance of the disciples of the "apostle of steel."

#### THE INTERNATIONAL RIFLE MATCH.

THE causes of the signal defeat of the American team in the international match at Creedmoor last week are not far to look for. They are, briefly, general apathy and security of victory, want of proper pecuniary support of the Rifle Association, inferior arms and ammunition, want of organization and discipline of the team, lack of experience of our riflemen, and last, but not least, superiority of the British as marksmen. From the first it was apparent that the match had not awakened the interest which its importance demanded and which was essential to success. In New York the State authorities had done much to discredit rifle practice, and in their anxiety to encourage an international contest to revive the waning enthusiasm the managers of the National Rifle Association yielded to the Englishmen points upon which they should have insisted; such as the wind gauge, the one year's service clause, etc. It was known in advance that the British were armed with a superior weapon, and in view of this fact a committee to arrange the manufacture of a suitable rifle to match it was appointed. Two very good arms were the result of their labor, but when they were brought out the eleventh hour had already arrived, and most of our men refused to accept them under the plea that they had not sufficient time to learn the points of the new weapon.

In June preliminary competitions in matches specially arranged for the purpose began, but here it also appeared that the proper attendance and interest were wanting. The competitors all hailed from New York, Massachusetts, Connecticut, Rhode Island, New Jersey, Pennsylvania, and the District of Columbia—a comparatively small portion of our immense country. Neither the Western or Southern States were represented. Geographical conditions, large cost of transportation, etc., had much to do with this, but the main reason was the inaction of most of the Governors and lack of financial support to the National Rifle Association. There was no interest in the affair and apparently no way to rouse it. The people had become so used to vanquish the British team that it was taken for granted that the Americans would again prove victorious.

The fact that our men in the preliminary matches did not make high scores did not seem to alter the opinion, the general feeling being that "great occasions always provide great men." Thus matters dragged on wearily from day to day, our side indulging the illusion that at the short ranges, where it was supposed the American point of strength lay, our team would gain sufficient advantage to counterbalance any gain of the English at the long ranges.

Meanwhile a number of men were firing away at Creedmoor, experimenting with rifles, ammunition, sights, etc., making generally but indifferent scores, which were as a rule, however, explained away on account of light, wind, weather, etc. There were some good men amongst them—some of them the best amongst those available—but all lacked experience, and each was firing "on his own hook." When at last the time for the selection of the team arrived, it was found that all the National Guard of this immense country afforded was 26 men from whom to make a choice, and to these the selection had to be confined. The team once chosen, the men elected their captain, and began practice under a coach, but with several different kinds of rifles and ammunition, and, as now appears, without the proper submission to the advice of the captain, and without the proper harmony absolutely necessary to success. The scores, though somewhat better, remained still ominously low, yet the illusion of beating the foe at the short ranges was kept up. While our team was thus meandering through their practice, the foe appeared on the range, a well organized, harmonious, thoroughly experienced and disciplined body of men. The report of their success at all the ranges on their first day's shooting fell like a bombshell in the American camp, and opened the eyes of all to the real state of affairs. It is true improvements in our team were

hastily improvised, but it was rather too late, and it became at once clear that victory for the Americans was impossible. Our men struggled gallantly to the end, but all their pluck could not prevent the most complete victory for the English known in the record of rifle shooting.

The most difficult part of the contest, the return match at Wimbledon next year, is yet before us and all efforts of the Americans should be directed towards retrieving at the English butts what they have lost at their own. The lesson received has been a severe, but plain one, and it has left no doubt where the fault lies. It must be profited by to its fullest extent, and the first step in this direction is to secure as soon as possible a rifle and ammunition equal in every respect to those of the English—a matter which will require all the ingenuity of our gunmakers. Having secured the rifle, general and persistent systematic practice should be commenced at once, and the field of selection extended as far as possible. The successes of the Pennsylvania and Michigan teams during the fall meeting at Creedmoor have opened our eyes to new resources, and it is to be hoped that the authorities of these and the other States will offer their citizen soldiers full opportunity for practice.

Discipline is necessary in a team. This has now been sufficiently demonstrated, and it should be made the first requirement of the one to be organized here. No man who is not willing to pledge himself beforehand to full submission to the captain and coaches should be accepted as a member, however well he may shoot. Experience is one of the most needed elements by the Americans, especially at the longer ranges, and it can only be gained by practice. Competitors should be encouraged to shoot as often as possible, and the back position should be studied.

To the many advantages of the British Volunteers over the National Guardmen which we have enumerated in previous issues, may be added the fact that any member of the former may leave them on fourteen days' notice. A man who is a good rifle shot, in the event of an important match, is therefore more likely to join, as he knows he can leave at his pleasure; a marked contrast of the system here, where every member of the National Guard has to serve his full term, which keeps many of our best riflemen away from the colors. If, however, the conditions of the match can be changed so as to require only six months' service previous to the match, instead of a year, as at present required, some good riflemen may be induced to join the Guard for the purpose of taking part in the contest at Wimbledon next year, in which case more favorable results for the Americans may be expected.

GEN. SHERMAN's speeches usually contain some point which attracts attention, and special comment has been awakened in the daily papers by what he said at the Veteran's meeting in New Hampshire on the subject of corruption in Washington, which was to this effect: "And now, my friends, I have come from Washington purposely to meet you, my comrades, here; and, although the rains have fallen, even ladies, as well as gentlemen, stand here in my presence, not to see me, not to see the distinguished men who are behind me, but because there is principle in their hearts; because here epitomized are the types of a class of men who are passing away, and you have come to drink at a fountain of patriotism. I assure you, comrades, that, when you hear it spoken that Washington is all corruption, it is a great mistake. There is a beautiful city, and that is Washington; a very beautiful city, with a fine population, and the business of the Government is done economically and well. I know our newspapers and public speakers are apt to say that Washington is a sink of iniquity. It is not so. There are a great many good people there (laughter), and there are a great many left yet. You may come there in peace and safety, and look upon the capital and be proud of the work of your people. There you will find the same trees shading the walks; there you will see beech, maple and pine trees; we have them all there. The work of the Government is being done economically and well. I have said \$1,000,000 is collected there every day, and every cent of it is accounted for. I doubt if there can be found anywhere upon the Merrimack a merchant who can show as clean a set of books as are kept at Washington."

Col. H. A. Morrow, 21st U. S. Infantry, in a recent report as to the workings of post schools, says: "A very great obstacle is the absence of trained teachers. Soldiers are not qualified by training for the work of teaching, and, like all other untrained men, they work at a great disadvantage. If professional teachers could be employed at such compensation as is usual in the vicinity of the post or would be reasonable, it would be a great advance on the present system of employing

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We have been informed that, during the progress of  
Commodore Temple's suit for mileage, and more particu-  
larly after the decision of the Supreme Court in his  
favor, he received numerous offers from officers, who  
would be benefited by his success, to share with him  
the expenses of the suit; but, naturally, these offers  
were declined, with many thanks. When the suit was  
first brought, however, Capt. Henry Wilson and Pay  
Director John S. Cunningham, who had made the  
journey with Commodore Temple to Montevideo and  
back, on which the claim for mileage was based,  
insisted upon sharing the cost with him, which was  
accordingly done; and to these three officers is due  
whatever credit attaches to the transaction.

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any delay or failure to receive the JOURNAL, so that we may give  
the matter our immediate attention.

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#### RODMAN'S DISCOVERIES IN GUNPOWDER.

The Gun and Steel Institute of Great Britain was  
recently invited to make a tour of the Royal Gun Fac-  
tory at Woolwich. Previous to the visit, papers were  
read to prepare the visitors for what they would be  
shown at those celebrated works, the principal one  
being by Col. Maitland, the superintendent. The  
Colonel, true to the national characteristic, assumed  
that England led the way in the science of gun con-  
struction, and in so doing, for good and sufficient  
reasons, became the "disciple of the apostle of wrought  
iron, Sir Wm. Armstrong." He at the same time  
admitted that "the apostle of steel, Krupp, received  
an equal following in Prussia." He admitted that in  
England, twenty-five years ago, gunpowder was literally  
powder, and literally an explosive, analogous in its  
effects, when burned in large masses to the violence of  
gun cotton. He acknowledged that it had "taken the  
seven leagued boots of modern science a quarter of a  
century to arrive at powder for heavy ordnance as it is  
made to-day." His audience was a most intelligent  
one; well up in the subjects treated of; and at the  
close of his lecture the Colonel was sharply criticised  
on many points. Dr. Siemens, of world wide fame in  
the subject of iron and steel, reminded him that in  
1860 Rodman's discoveries in gunpowder, and his deduc-  
tions from them, concerning the proper powder for  
artillery purposes, had been presented to the British  
public through the Society of Civil Engineers.

Col. Maitland, with a frankness that does more credit  
to his honesty than to his professional lore, admitted  
that he was unable to connect the name of Rodman  
with gunpowder; he claimed that Rodman was all  
theory, and that he had produced nothing in the way of

size of grain, pressure, or velocity, that would enable  
an opinion to be formed. A less prejudiced investiga-  
tion would have shown Col. Maitland that Gen. Rod-  
man's original and analytical mind was attracted to the  
science of gun construction and gunpowder as early as  
1845, and that in 1849 he had perfected his plan for  
casting guns hollow and cooling them from the interior.  
As early as 1857 he had mastered the subject of gun-  
powder for heavy ordnance, and the following extracts  
from his report, published in 1859, attest the progress  
and accuracy of his deductions:

TABLE showing the velocity of shot, in feet per second, and the  
pressure of gas per square inch, in lbs., due to equal charges  
of powder, of the same composition, and differing only in  
size of grain, each result being a mean of five fires with the  
42 pounder gun, the same shot being used in all the fires—

Diameter of grain, inches.	Weight of charge, lbs.	Weight of shot, lbs.	Velocity of shot, feet per second.	Pressure of gas per square inch, in lbs.
1	8	43	1261	305
1.5	8	43	1226	284
2	8	43	1194	257
2.5	8	43	1161	189
3	8	43	1146	84
4	8	43	1127	82

\* Escape of gas at the bottom of the bore which was presented  
in subsequent fires, is believed to account for indication of pres-  
sure at bottom being less than at 14 inches.

TABLE showing the velocity in feet, and pressure of gas in lbs.  
due to equal charges of powder of same composition, differing  
only in size of grain, each result being a mean of five fires  
with 11-inch gun—

Diameter of grain, inches.	Weight of charge, lbs.	Weight of shot, lbs.	Velocity of shot, feet per second.	Pressure of gas in pounds.
3	12	67	186	912
3	12	67	186	890
4	12	67	186	861
5	12	67	186	932
6	12	67	186	933

\* Powder not as hard pressed as others used.

TABLE showing the range in yards and maximum pressure in feet  
due to equal charges of powder of same composition, differing  
only in size and shape of grain, a mean of three fires  
with 15-inch gun—

Kind of powder.	Range in yards.	Maximum pressure, lbs.	Velocity of shot, feet per second.	Weight of charge, lbs.
Grains, 6 inches.	35	328	13,133	6"
"	40	337	18,833	35"
Perforated cake.	60	345	8,000	35"

"Attempts were made to take velocities, but the Navy  
meridian was out of order; an approximation to the  
velocity of shots fired with 40 lbs. of grained powder  
was obtained; the average was 1,328 ft. . . . The  
point of greatest interest in these results is the fact that  
the maximum pressure of gas diminishes as the diame-  
ter of grain increases, in a much greater ratio than the  
squares of the corresponding velocities; thus showing  
conclusively that the velocities, due to our present charges  
of small grain powder, may be obtained with a greatly  
diminished strain upon the gun, by the use of powder  
properly adapted in size of grain to the calibre and  
length of bore in which it is to be used; or that increased  
velocities may be thus obtained without any increase of  
the strain upon guns.

"The result also shows the impropriety of taking the  
eprouvette range as an indication of the projectile force  
of powder which is to be used in guns of any con-  
siderable length and calibre; powder to be used in  
mortars should be proved in them, and that for guns in  
guns. . . . With a given mass of shot to move, and a  
given charge of powder to move it, the more rapid the  
rate of combustion, the less distance will the shot have  
moved during the time of combustion, and the nearer  
will the developed pressure approach that due to its  
combustion in its own volume, which is not less than  
300,000 lbs. per square inch. The fulminates and fine  
grained quick powder, behind heavy projectiles, so  
nearly approach this condition as to burst the gun before  
the shot has had time to move; not from the momen-  
tum with which the straining and re-acting masses reach  
their position of statical equilibrium, but from absolute  
statical pressure. . . . Ordinarily a cannon at each dis-  
charge is subjected to a force which would inevitably  
burst it, if permitted to act for any appreciable length  
of time, and the reason they do not, is because they  
have not time to do so before the bursting pressure is  
relieved. . . . The perforated cake powder was arrived  
at from the following theoretical considerations:

The projecting charge should be so related, in its rate of com-  
bustion, to the force of the gun from which it is fired, that with  
a given thickness of metal and length of bore, the maximum  
velocity of shot should be such that the gun should be produced.  
This requires that every part of the gun should be subjected to  
the same proportional strain at each discharge. If the resistance  
which the gun could offer was independent of the length of sur-  
face subjected to pressure, the foregoing conditions would require  
that the pressure of the gas should be uniform throughout the

length of the bore. . . . The most favorable hypothesis that can be made with grain powder is that the grains are spherical and of uniform size. If the powder be so hard pressed that the gas cannot permeate the grains, and that their diameters undergo equal reduction in equal successive portions of time, it is at the end of half the time required for its total combustion, have caused and seven-eighths of the charge; while the shot will have traversed only something more than one-fourth of the bore, supposing the time for total combustion of the charge to be that for the shot to traverse the length of the bore. The gas is evolved in the inverse order of what it should be, giving rise to excessive pressure at and near the seat of the charge, and to too rapid diminution thenceforward. This property may be remedied to some degree by increasing the size of the grain, if it be made sufficiently hard to be impermeable to the pressure of the gas when fired. To bring the maximum pressure within proper limits requires so large grains as to either require an inconveniently long gun, or an increase of charge to produce requisite velocities.

The condition of uniformity of pressure along the entire length of the bore would be theoretically aided by a cartridge so constructed that ignition should only take place on the interior surfaces of cylinders, and that combustion should increase their radii, equal quantities in equal times. The radii increasing directly as the times, and the area of the cross section of the cylinders, and consequently the volume of gas evolved, being as the square of the radii, it will also be as the square of the times, which assimilate to the dynamic conditions of the equation of motion due to a constant accelerating force. ( $S = \frac{1}{2}gt^2$ ). But my experiments on boring cylinders by pressure, show that for short lengths of surface pressed the resistance offered would be greater for a length of two calibres from the bottom, than for one of seven, or any greater length, in the ratio of 3 to 2, to which the pressure of the powder gas should be made to conform. This can be done with perforated cake by establishing the proper relation between the initial burning surface, or between the number and diameter of the cylinder holes and the thickness of the walls between them, or by varying the number and thickness of the cakes in a given charge. The ratio of maximum to mean pressure would also be raised in the same way, as the burning surface extends over the whole surface of the cakes. It will be readily seen that this force of carriage gives entire control over the rate of combustion of the charge; and that it removes all limit, as regards safety, to the calibre of which guns may be made.

Thus it is seen that Col. Maitland and his predecessors could over twenty years ago have learned from Rodman what is now so widely known and practiced in reference to powder for large guns. In fact we may claim Rodman as the originator of the new ideas concerning military gunpowder. That the English authorities were either ignorant of or ignored this progress, is demonstrated by a glance at "Magendie's Ammunition" (Ed. of 1867), which shows that the powder used in the largest guns, many of which were burst by it, was what was known as "R. L. G." which varied between one-eighth and one quarter inch in diameter. In fact the gunpowder committee of 1866, and Select Ordnance Committee of 1867, were then only recommending "pellet powder," which was analogous to American "Mammoth," which was used throughout the civil war. Rodman, as constructor of ordnance during the war, was constantly employed in looking after the manufacture and proof of guns and projectiles; but his spare moments were given to the study of the manufacture and modification of gun powder, and it is well known he left many ideas and principles concerning it in an unfinished state at his death, which occurred June 7, 1871. The scientific and military world has reason to deeply regret that, for unfathomable reasons of its own, the department to which Gen. Rodman belonged removed him at the close of the war from the scene of his former distinction, and relegated him to the ordinary work of erecting buildings for a new arsenal. Spasmodic attempts were made after his death to resume the powder investigation, but with such indifferent success that we have since been living upon the progress of other nations.

Col. Maitland was also sharply handled in the after discussion by Sir Henry Bessemer, on the adoption by Great Britain, or rather by the Woolwich authorities, of Sir Wm. Armstrong and wrought iron instead of steel. It appears that just previous to that time Col. Eardly Wilmot, R. A., a free and strong thinker, was Superintendent of the Woolwich works; that Sir Henry had informed him of his early experiments in his conversion process; that the colonel had recognized the value of the discovery, and had lent the facilities of the works in his charge to the development and test of the process, until he had become convinced of the great value of the product in the manufacture of ordnance. That he had taken steps towards introducing the product and process at Woolwich; but that the great national institution, called by Dickens the "Circumlocution office," had interposed, and the colonel was superseded by Mr. Sidney Herbert and Sir William Armstrong. Sir Henry's story of his exit from Woolwich involuntarily carried us back to the hypothetical "Daniel Doyle," who the great novelist caused to be jerked out of the circumlocution office so summarily by "Mr. Meagles."

In this country we are similarly afflicted with a circumlocution office that will vie with its English progenitor in its most successful achievements of "how not to do it." It showed its hand when it refused to allow Rodman to experiment on hollow casting under the auspices of the Government, and again when it removed him from the field of experiment and research in gunpowder. "How not to do it" triumphed when the principle of making all parts of a musket interchangeable, which was introduced and perfected at the National Armory at Harper's Ferry in 1815 by the inventor of Hall's carbine, was so little appreciated as to be allowed to fall into disuse and oblivion, until years

afterwards, when it was reinvented and introduced "by the department" at Springfield. A hand as skilful in the art of "how not to do it" as the senior Barnacle and his adjunct, the young "Tite," was required to suppress and reject, even in the face of Gen. Scott, from 1850 until 1872, so remarkable a proposition, so clearly and forcibly put, as that of Dr. Woodbridge concerning the manufacture of a gun from steel wire soldered together by moulten bronze; a method of gun construction eagerly seized upon by the French as soon as heard of, and one that even the "apostle of wrought iron," after spending tens of millions of pounds of Britain's treasure upon costly failures of his own ideas, is glad to take up as a last refuge against the advance of the disciples of the "apostle of steel."

#### THE INTERNATIONAL RIFLE MATCH.

THE causes of the signal defeat of the American team in the international match at Creedmoor last week are not far to look for. They are, briefly, general apathy and security of victory, want of proper pecuniary support of the Rifle Association, inferior arms and ammunition, want of organization and discipline of the team, lack of experience of our riflemen, and last, but not least, superiority of the British as marksmen. From the first it was apparent that the match had not awakened the interest which its importance demanded and which was essential to success. In New York the State authorities had done much to discredit rifle practice, and in their anxiety to encourage an international contest to revive the waning enthusiasm the managers of the National Rifle Association yielded to the Englishmen points upon which they should have insisted; such as the wind gauge, the one year's service clause, etc. It was known in advance that the British were armed with a superior weapon, and in view of this fact a committee to arrange the manufacture of a suitable rifle to match it was appointed. Two very good arms were the result of their labor, but when they were brought out the eleventh hour had already arrived, and most of our men refused to accept them under the plea that they had not sufficient time to learn the points of the new weapon.

In June preliminary competitions in matches specially arranged for the purpose began, but here it also appeared that the proper attendance and interest were wanting. The competitors all hailed from New York, Massachusetts, Connecticut, Rhode Island, New Jersey, Pennsylvania, and the District of Columbia—a comparatively small portion of our immense country. Neither the Western or Southern States were represented. Geographical conditions, large cost of transportation, etc., had much to do with this, but the main reason was the inaction of most of the Governors and lack of financial support to the National Rifle Association. There was no interest in the affair and apparently no way to rouse it. The people had become so used to vanquish the British team that it was taken for granted that the Americans would again prove victorious.

The fact that our men in the preliminary matches did not make high scores did not seem to alter the opinion, the general feeling being that "great occasions always provide great men." Thus matters dragged on wearily from day to day, our side indulging the illusion that at the short ranges, where it was supposed the American point of strength lay, our team would gain sufficient advantage to counterbalance any gain of the English at the long ranges.

Meanwhile a number of men were firing away at Creedmoor, experimenting with rifles, ammunition, sights, etc., making generally but indifferent scores, which were as a rule, however, explained away on account of light, wind, weather, etc. There were some good men amongst them—some of them the best amongst those available—but all lacked experience, and each was firing "on his own hook." When at last the time for the selection of the team arrived, it was found that all the National Guard of this immense country afforded was 26 men from whom to make a choice, and to these the selection had to be confined. The team once chosen, the men elected their captain, and began practice under a coach, but with several different kinds of rifles and ammunition, and, as now appears, without the proper submission to the advice of the captain, and without the proper harmony absolutely necessary to success. The scores, though somewhat better, remained still ominously low, yet the illusion of beating the foe at the short ranges was kept up. While our team was thus meandering through their practice, the foe appeared on the range, a well organized, harmonious, thoroughly experienced and disciplined body of men. The report of their success at all the ranges on their first day's shooting fell like a bombshell in the American camp, and opened the eyes of all to the real state of affairs. It is true improvements in our team were

hastily improvised, but it was rather too late, and it became at once clear that victory for the Americans was impossible. Our men struggled gallantly to the end, but all their pluck could not prevent the most complete victory for the English known in the record of rifle shooting.

The most difficult part of the contest, the return match at Wimbledon next year, is yet before us and all efforts of the Americans should be directed towards retrieving at the English butts what they have lost at their own. The lesson received has been a severe, but plain one, and it has left no doubt where the fault lies. It must be profited by to its fullest extent, and the first step in this direction is to secure as soon as possible a rifle and ammunition equal in every respect to those of the English—a matter which will require all the ingenuity of our gunmakers. Having secured the rifle, general and persistent systematic practice should be commenced at once, and the field of selection extended as far as possible. The successes of the Pennsylvania and Michigan teams during the fall meeting at Creedmoor have opened our eyes to new resources, and it is to be hoped that the authorities of these and the other States will offer their citizen soldiers full opportunity for practice.

Discipline is necessary in a team. This has now been sufficiently demonstrated, and it should be made the first requirement of the one to be organized here. No man who is not willing to pledge himself beforehand to full submission to the captain and coaches should be accepted as a member, however well he may shoot. Experience is one of the most needed elements by the Americans, especially at the longer ranges, and it can only be gained by practice. Competitors should be encouraged to shoot as often as possible, and the back position should be studied.

To the many advantages of the British Volunteers over the National Guardsmen which we have enumerated in previous issues, may be added the fact that any member of the former may leave them on fourteen days' notice. A man who is a good rifle shot, in the event of an important match, is therefore more likely to join, as he knows he can leave at his pleasure; a marked contrast of the system here, where every member of the National Guard has to serve his full term, which keeps many of our best riflemen away from the colors. If, however, the conditions of the match can be changed so as to require only six months' service previous to the match, instead of a year, as at present required, some good riflemen may be induced to join the Guard for the purpose of taking part in the contest at Wimbledon next year, in which case more favorable results for the Americans may be expected.

GEN. SHERMAN'S speeches usually contain some point which attracts attention, and special comment has been awakened in the daily papers by what he said at the Veteran's meeting in New Hampshire on the subject of corruption in Washington, which was to this effect: "And now, my friends, I have come from Washington purposely to meet you, my comrades, here; and, although the rains have fallen, even ladies, as well as gentlemen, stand here in my presence, not to see me, not to see the distinguished men who are behind me, but because there is principle in their hearts; because here epitomized are the types of a class of men who are passing away, and you have come to drink at a fountain of patriotism. I assure you, comrades, that, when you hear it spoken that Washington is all corruption, it is a great mistake. There is a beautiful city, and that is Washington; a very beautiful city, with a fine population, and the business of the Government is done economically and well. I know our newspapers and public speakers are apt to say that Washington is a sink of iniquity. It is not so. There are a great many good people there (laughter), and there are a great many left yet. You may come there in peace and safety, and look upon the capital and be proud of the work of your people. There you will find the same trees shading the walks; there you will see beech, maple and pine trees; we have them all there. The work of the Government is being done economically and well. I have said \$1,000,000 is collected there every day, and every cent of it is accounted for. I doubt if there can be found anywhere upon the Merrimac a merchant who can show as clean a set of books as are kept at Washington."

Col. H. A. Morrow, 21st U. S. Infantry, in a recent report as to the workings of post schools, says: "A very great obstacle is the absence of trained teachers. Soldiers are not qualified by training for the work of teaching, and, like all other untrained men, they work at a great disadvantage. If professional teachers could be employed at such compensation as is usual in the vicinity of the post or would be reasonable, it would be a great advance on the present system of employing

ordinary soldiers. It is desirable that the rank and file of the Army should be men of intelligence. Some effort should be made, and some inducement offered, to procure and make such men. One way, and in my opinion an excellent one, of doing this, would be to make the positions of non-commissioned officers more remunerative, and therefore more respectable. Sergeant-majors, quartermaster-sergeants and 1st sergeants of companies, should be paid fifty dollars per month; ordinary duty sergeants twenty-five dollars per month, and corporals twenty. An educational standard might be established for these places. Learning, for learning's sake, is not to be much expected among soldiers. There must be something ahead of them as inducement, encouragement, or not much will come out of the post schools, except for children. Educated teachers are a necessity." We referred some weeks ago to the fact that the adjutant-generals of the several military departments have most of them sent in to the War Department their annual reports as to the working of the post school system, and we understand these recommendations all tend to show that if the system is to work its way to success there must be an educated corps of teachers with adequate remuneration.

#### THE NAVAL ASYLUM.

This institution, which has served such an admirable purpose in years gone by, and which has, we trust, before it still many years of usefulness, is in a condition which demands attention from the law making power. A reference to the annual report of Rear-Admiral Nichols shows that "the building is now occupied to its fullest capacity, and the time has arrived when it is absolutely necessary to provide accommodations for the increased and increasing numbers of worn out and faithful servants who are applying for the benefits and the privileges of the institution, and in whose behalf the faith of the nation has been pledged."

Of late years the number of those who have claims upon the Government by reason of disability contracted during the Rebellion, has very largely increased, and the building, which was once thought to be so commodious, is now full to overflowing, and increased accommodations are imperatively demanded. For this purpose the Admiral asked an appropriation for an additional temporary building, "as a measure which will meet the requirements for a few years." This, however, is regarded as but an expedient to tide over the difficulty, for the report goes on to recommend the removal of the Asylum to a more favorable situation, New York or New London being spoken of as places near which an eligible site might readily be obtained.

That the present location is one entirely unsuited to the tastes of the beneficiaries is most unquestionably true; and it is undoubtedly a fact that it is somewhat like going to prison for old salts to be immured within the high walls which surround the Asylum, with the busy hum of a huge city occasionally wafted to their ears, and where there is no scent of salt water to recall their youthful days and to remind them of the stirring scenes in which they were actors. Humanity demands that the longing for the sea which has become a second nature to these aged men, should be gratified, and that their dwelling place should be fixed at another point. Sanitary reasons could also be given for a removal; doubtless a prolongation of life would result if they should be given free access to the salt-laden air.

The property now occupied is a very valuable one, and it doubtless could be sold for a good round sum. Admiral Nichols suggests the purchase of a new site, but it seems to us that this would be a useless expense. The Navy Department has recently come into formal possession of a piece of property most admirably located, and one which would furnish ample accommodations for the purposes of the Asylum. We refer to the magnificent gift made by the city of Newport, Coaster's Harbor Island. Upon the eighty five acres contained within its limits there is plenty of room for both the training station and the Asylum, or (as we think would be a better title for it), the United States Sailors' Home. There need be no conflict of jurisdiction here; the two institutions would be separate and distinct, the Home being a civil establishment, while the other would be a naval one; they would flourish side by side with equal vigor, and the young lads would listen to the old heroes' tales of the cruises "around the Horn" or "up the Straits," and their spirits would take fire as they heard the stories of the *Monitor* and *Merrimac*, the *Atlanta* and *Weehawken*, of New Orleans, Mobile, Port Hudson, Vicksburg, Fort Henry, and Fort Fisher, and they would feel that they too would try to act as well their parts, should necessity ever demand.

And it would be a good thing for the old men too,

thus to renew their youth and fight their battles over again, and to mingle with the first young blood that was coming on to take their places.

No better place than Newport could be found to gratify the intense longing of the old sea dog for the sight of those things in which his whole heart is bound up. Narragansett Bay, swept by the life-giving breezes from the adjacent ocean, and whitened by the sails of an endless procession of vessels of all descriptions, lies spread at the feet of an observer who stands upon the highest point of the island. Here we would place the Sailors' Home—a home in fact as well as in word; and as none of the money realized from the sale of the present Asylum would be spent for ground, a building better suited to the purpose and far more extensive and commodious than the present one could be erected, and Jack Tar would end his days in a situation far more congenial than that to which he is doomed under the present state of affairs. We trust that before long the first step will be taken towards the consummation of the idea herein advanced, and we commend it to the consideration of Secretary Chandler with the hope that under his administration it may become an accomplished fact.

PRESIDENT ARTHUR returned to Washington this week. He visited the White House on Tuesday in company with Colonel A. F. Rockwell, superintendent of public building and grounds, and inspected the work of repairing the House and grounds. The roadway leading to the entrance of the Executive Mansion has been torn up, and laborers are engaged in laying a concrete pavement. The mansion is also receiving an extensive overhauling both inside and out. The President expressed his satisfaction to Col. Rockwell at the improvements. A cabinet meeting was held on Wednesday, only four members being present, Secretaries Lincoln, Frelinghuysen, Teller and Folger. President Arthur left Washington again on Wednesday, to be absent until about the middle of October.

A Fort Barrancas correspondent writes us as follows: "In your editorial of September 9, your informant seems to have forgotten the little command still remaining at Fort Barrancas, near Pensacola, Fla. Captain C. W. Hobbs, 3d Artillery, post quartermaster and commissary, remains in command, and with him are Acting Assistant Surgeon Theodore Artand, U. S. A., and his interesting family, and also the following named enlisted men, viz.: Ord. Sergt. Thomas Carroll and family, Commissary Sergt. Thos. Lacey, Hospital Steward Thomas Dawson and family, Acting Q. M. Sergt. A. E. Chisham, Battery E, 3d Artillery; Private Andrew Coyne, Battery B, 3d Artillery; hospital attendant and Private James Farrell, Battery B, 3d Artillery, a patient in hospital. We are shut in, having no means of communication with the outside world except by mail and telegraph, and we would wish our friends to know where to locate us."

MR. WM. H. SMYTH, of Albany, N. Y., received the appointment of major and paymaster *vice* Vedder, retired, on Wednesday. He is a young man about 30 years of age, the son of ex-Insurance Commissioner John H. Smyth, of Albany, and is well and favorably known in that community as a man of great business abilities, who owes his appointment to the political and personal influence of his father, who is an old intimate friend of President Arthur's. The candidates mentioned last week for the place, have one chance left, by the retirement of Lt.-Col. Potter, Oct. 1.

THE report we give elsewhere of the cause of the death of Captain and Brevet Major Fergus Walker, 1st U. S. Infantry, lends additional emphasis to what was said in our article of September 9, on Army "Rewards and Punishments." Congress and the country absorbed in the contemplation of what was done by our Army twenty years ago, gives but little heed to what our Army does and endures to-day, and reserves its justice and generosity for the bayonets that vote.

WORK was begun this week on the Asylum for Insane Soldiers at the St. Elizabeth Insane Asylum, Washington, D. C., for which \$5,000 was appropriated by the last Congress.

THE team of the Military Division of the Atlantic failed to secure the "Hilton Trophy," although their score was a creditable one. It went to Pennsylvania.

LIEUT. L. A. LOVERING, U. S. A., has returned to West Point from a visit to New Hampshire.

#### ADDITIONAL PERSONAL ITEMS.

THE *San Francisco Report*, advertising to the arrival of the Marquis and Marchioness of Lorne, says facetiously: "The verdict of the crowd was that General McDowell's braided and lined military cloak was the handsomest. Consul Booker's bow to the Princess at the Oakland Ferry was the most deferential, but Adjutant Gen. Kelton captured the bakery on the score of length and elaborateness. From the time the gallant wearer of the blue and brass lifted his cap to the time he resumed it was, by actual count, nine seconds. The Princess looked surprised, but gratified."

GEN. JOHN GIBBON and Colonel E. F. Townsend, U. S. A., were present this week at the reunion of the Army of the Cumberland at Milwaukee.

WE learn that the Southern Historical Society, of which the Rev. J. M. Jones, D.D., of Richmond, is secretary, has on hand a few copies of General Early's "Memoir" of his military operations during 1864 and 1865, which can be had on application to the society, at the price of 75 cents. As this work is out of print, historical students and collectors may be glad to learn this fact.

GEN. W. T. SHERMAN and party were in Montreal September 20.

GEN. HENRY C. WAYNE publishes in the Savannah (Ga.) *Morning News*, of September 18, an interesting article on the Lieutenant Generalcy, giving authentic historical facts concerning the office, "derived from the late Maj. Gen. Thomas S. Jesup, U. S. A., from a critical examination of the archives of the War Department in Washington, of the American State papers, the annals of Congress, and every public document bearing upon the subject that I could find in the libraries of the Departments and of Congress, and of the various lives of Washington at the time that General Scott was urging his claim for the brevet of lieutenant general. This examination was made in accordance with official request, and its results were confirmed by conversations with Generals Scott, Gibson, Totten and other officers who had been associates and successors of the veteran soldiers and statesmen surrounding Washington in his active public career."

THE following army officers registered at the Adjutant-General's office, Washington, D. C., during the week ending September 20th, 1882: Capt. J. S. Tompkins, retired, 1525 K. st., N. W., private business; Lieut.-Col. A. J. Dallas, 22d Inf., 723 18th st., N. W., leave absence; Lieut. R. Birnie, Ord. Dept., Ebbitt House, leave absence; Col. John E. Smith, retired; Ebbitt House; Maj. J. R. McGinness, Ord. Dept., leave absence; Capt. John G. Turnbull, 3d Art., 2017 F st., N. W., leave absence; Lieut.-Col. A. J. Alexander, 2d Cav., Ebbitt House, leave absence; Lieut.-Col. Wm. Chapman, retired, 1576 30th st., W., Washington, visiting friends.

THE Nashville *World* of September 17th says: "We were surprised at the number of veterans of the Mexican War we saw in attendance at the annual reunion who were more or less afflicted with paralysis. Upon inquiry among those present we were still more astonished to learn that many of the veterans of the adjacent counties were confined at home with the same affliction—too feeble to be in attendance. Among other questions, we present these: 1. Is the tendency to paralysis among the veterans of the Mexican war, in Tennessee, greater than among other citizens of the State of the same age and of similar habits? 2. Does such tendency extend to the veterans of that war in any other, or in all other localities? 3. What are the causes which have produced that tendency, and do they still exist? 4. What can the veteran do in the way of diet, habit, or medicine to avoid this tendency or palliate its consequences? We raise these questions not only in the interest of science in general, but of the veterans of the Mexican war in particular.

AT Tucson, recently, two soldiers representing themselves as being discharged from the service, presented final statements to Paymaster W. E. Croary for \$694.48. The men were from Whipple Barracks, near Prescott, and it aroused suspicion of those upon whom the orders were drawn. The men were told to call again in the course of an hour. In the meantime the officers at Prescott were communicated with. They pronounced the certificates forgeries and the men deserters. A warrant for their arrest was sworn out, and was served by Marshal Buttner. The men were turned over to the military authorities for punishment. They gave their names as James Gibson and John Read, but the right name of the former is Leach, and that of the latter Brown.

CAPT. S. A. DAX, 5th Artillery, U. S. A., who well sustained the credit of the Army at Creedmoor this year, won the first stage of the Military Championship Match. The captain used a military rifle, and made the handsome total of 92 points out of a possible 105. "The distances were 200, 500 and 600 yards. Captain Day's full score was as follows: 200 yds. 5, 4, 4, 5, 4, 3—29. 500 yds., 4, 5, 5, 5, 4, 5—33. 600 yds., 5, 5, 5, 3, 4, 3—30. Total, 92.

COMMANDER ALLAN D. BROWN, U. S. Navy, has an interesting article on explosives in the "Popular Science Monthly" for October, just issued.

IT has finally been decided to have the reception to Chief Engineer Melville in Washington, on Saturday afternoon. In view of the domestic trouble which followed his return home, Mr. Melville was inclined to ask his friends to make no formal demonstration when he reported to the Department. The committee, however, prevailed on him to accept the reception, and it will be held at the time stated above. According to present arrangement, he will be met at the depot and escorted to the Ebbitt House, where the reception will be held. The following gentlemen will act as a committee to make the necessary arrangements for the proposed re-





service to which he has done such honor. The *Record* says:

The profound sensation created by the first shock of the news that the wife of Engineer Melville had become mentally deranged was intensified by the rumors current yesterday in regard to the case. The true story of the affair is a most painful one. When Engineer Melville left his home to join the ill-fated *Jeannette* expedition among the last persons he saw was the good old physician who had attended his family since he had been at Sharon Hill—Dr. W. Fisher Longstreth. A cloud had arisen in Melville's domestic life. His wife had acquired an appetite for drink, which had more than once involved her in trouble and threatened to engulf him in ruin. All efforts to conquer her craving for liquor had failed, and although at times there seemed to be ground for hope, the Engineer left his family with many misgivings. He asked his friends to look after his wife and the little girls, and one day, taking the family doctor aside, said to him: "Look after them, doctor. I leave them in the hands of Heaven and of my friends."

On Friday night the voyager returned to his home and found his wife under the influence of liquor, and the generous reception of the Sharon Hill people was wound up with a drunken orgie, in which Mrs. Melville and the negro waiters were conspicuous.

A Sharon Hill friend of Engineer Melville, a lady who lives within a hundred yards of the Melville cottage, said: "Poor Melville's heart was almost crushed. He had heard in New York stories which prepared him to find that Mrs. Melville had not given up her unfortunate habit, and these reports had been in a measure confirmed at Philadelphia; but for the terrible reality which was to confront him upon the threshold of his home he had not been prepared. Don't misunderstand me," added the lady; "I do not mean to say a word that might do Mrs. Melville an injustice. She is a most generous, kind-hearted and sympathetic neighbor—a mother who loved her children and took excellent care of them, in a way. I think that she is also fond of her husband and proud of his fame; but the demon which held possession of her has clouded her whole life, and involved her unhappy family in such distress as is painful to think of. As soon as Engineer Melville had greeted his children he went into the sitting room, where his wife was waiting to receive him. He saw too truly that his worse suspicions were to be realized. Opium and drugs had been given to her in the hope that she might tide over the night. Once during the evening she broke away from the reception room and went to the kitchen, where, in company with the colored waiters and others, she drank three glasses of wine and other liquors. Let us draw a curtain over the scene between husband and wife when the guests had departed, the children had been put to bed, and the two were left alone—the unfortunate woman and the unhappy man. The reaction after weeks and months of over-indulgence came at last. Mrs. Melville became alarmingly delirious. She threatened to kill her husband, drew a pistol on him, and declared that she would not only end his life but would destroy her children and burn down the house. Mr. Melville then left the house in order to pacify her. And the man who had braved death in its most dreadful form without a tremor, fled into the dark night, miserable and crushed in spirit. Fearing that his wife might do harm to herself and her children, he sent a man back to watch the house while he went to procure the aid of medical advice and the counsel of friends. The result is already known."

Another neighbor and friend of the Melville family, to whose house Engineer Melville went on Sunday morning, says that she never saw such a picture of grief in her life. For a few moments he gave way to his feelings in a flood of tears, with his head bowed between his hands. He had been without sleep all night, in anxious consultation with Drs. Longstreth, of Sharon Hill, and Bartleson, of Clifton, and friends from Darby. Later in the day the two doctors visited Mrs. Melville, and after a consultation signed a certificate that her mind had been deranged by chronic alcoholism, and delivered it to her husband.

Engineer Melville, after further consultation, determined to have his wife removed to an asylum at once. This was accomplished yesterday morning as quietly as possible. Two large carriages drove up to the Melville cottage early in the morning. From one out stepped Engineer Melville himself, and from the other two gentlemen from Darby. As quietly as possible the unfortunate lady was told that she would be compelled to go to the Norristown Asylum. She submitted quietly at first, but afterwards declined to go unless the children were sent along with her. Engineer Melville, with his hat in his hand and his head bent down, stood quietly at the gate. The mother and children were placed in one carriage and Mr. Melville got in the other, and so, with a little knot of sympathizing friends standing by, the sad procession drove away. The negro servant, who, during the reception on Saturday night, was in an intoxicated condition, and had been caught selling liquor to men and boys over the fence, was sent away yesterday afternoon by some Sharon Hill ladies who were left in charge of the cottage.

The Sharon Hill people, all of whom have for years known of Mrs. Melville's unfortunate habit, are unanimous in the expression of opinion that her husband is justified in what he has done. Dr. Longstreth, who has been Mrs. Melville's physician ever since she came to Sharon Hill, declined to furnish any details for publication. He, however, said that he knew Mr. Melville had acted upon the advice of his friends; that he was sustained by the people of Sharon Hill, and that he (the doctor) believed that he had done what his (Melville's) sense of duty to himself and family prompted him to do as an honorable man. Dr. Bartleson says about the same thing. As to the sanity or insanity of Mrs. Melville when under the influence of liquor each doctor declined to express an opinion. She has been considered unbalanced in mind for a long time. Her mother died insane, and her aunt died in an insane asylum.

Some years ago Mr. Melville was compelled to publish a warning to the public not to trust his wife on his account. She is an excellent shot with a pistol or rifle, and on the occasion of her recent visit to Washington to interview Secretary Chandler about her allotment, she threatened to shoot that official.

Engineer Melville returned from Norristown yesterday, and was accompanied by his three children. The party stopped for a few hours at the Continental Hotel, and then went on to Sharon Hill, where they remain for the present in the cottage. Mr. Melville's sister was telegraphed for to take charge of the household.

Lieut. Danenhower has furnished the following card for publication:

WASHINGTON, Sept. 17, 1882.

My attention has been drawn to several items and comments referring to an alleged trouble between Chief Engineer George W. Melville and myself. The latest one is in the Washington *Star* of last evening, copied from a New York paper, and is the first that takes a definite shape, stating under title "Melville vs. Danenhower" "The alleged charge of Lieut. Danenhower that if he (Melville) had not turned back from the first search Captain DeLong and his

companions might have been saved." The above alleged charge has never been made by me. In the first place, the facts would not admit of such a charge, for when Melville turned back the Captain's party had been dead at least fifteen days. In the second place, I would never make such a charge except to the proper official authorities.

I have always avoided averse and premature criticisms of my late comrades, and will simply refer to what I said when confronted by half a score of journalists on board the *Cele*, on my arrival at New York, and as published in the New York *Herald* of May 29, 1882, under the caption, "A Vindication of Melville." This was caused by my learning that he had been hastily and unfairly criticised previous to my return. I have made no charge against any one. My personal relations with Melville have been of a very pleasant character. Regretting that I have to appear in print, and hoping there will be no further necessity for it, I am very respectfully,

JOHN W. DANENHOWER,  
Lieutenant U. S. N.

#### G. O. 96 AND ARTILLERY CHANGES.

To the Editor of the Army and Navy Journal:

SINCE my last communication on the Light Battery order was written, the full text of the order has appeared in the JOURNAL, and its context contains much food for thought for officers of the artillery arm. Its terms seem to imply that light artillery should be more "favored," and that it is a more "distinguished" service than that of siege, garrison or sea-coast artillery. It explicitly says, none but the most soldierly should command it, which is equally true in regard to any and all troops; and that one of the leading qualifications for a light artilleryman, is "regimental esprit." Whether in the light of the past, the conditions of the present, and the probabilities of the future of the art of war, light artillery should be the most favored, is a question that no one will deny is very open to debate.

The action of the War Department towards the branch that it so magnificently exalts, is not a manifestation that it believes in its own announcements, for without doubt it has placed many obstacles in the way of the light artillery to improvement in drill and knowledge; and unless the light batteries now stationed at their various regimental headquarters by the War Department, for the purpose of feeding to a sufficient development this feeling of "regimental esprit" it regards essential in a light artilleryman, may be considered an earnest effort in that direction, it has done nothing in its favor, or to recognize in orders its existence even.

One year ago a light artillery board was assembled, to consider and recommend for adoption changes that modern improvement might have rendered necessary. The board was ordered to disperse after its report was submitted; and as it did so over a year ago, it is fair to suppose the War Department has possessed the result of its recommendations for that period of time. Not a syllable has been heard from it; and the natural inference is, that the authorities either had no faith in the recommendations made, or else consider the subject of too little consequence to act upon and publish. The proper "esprit" to cultivate, it strikes the writer, would be one of corps or arm; one of the greatest obstacles the artillery has had to contend against in this respect, is its organization into distinct regiments. Homogeneous discipline, drill, instruction and efficiency are impossible as long as there are five different centres from which they radiate; and a glance at the Army Register will show how unequally the regimental organization has treated officers of artillery in the way of promotion; which, by the way, is one of the strongest incentives to "esprit" that is known.

To allow the commanders of the light batteries to continue so for three years oddly comports with the idea advanced of the arm being "favored," and it is feared the scheme will sadly interfere with it ever becoming distinguished; for, taking human nature as we find it, it is next to impossible for a commander to feel the interest in a temporary command that he would if his position was permanent and his reputation was inseparably connected with one command. How a triennial change in light battery commanders is going to contribute to "uniformity in instruction" the writer is unable to comprehend.

When we approach the question whether the light artillery should be regarded as the most favored and distinguished arm, we realize how impossible it is to dispose of the question in the summary manner necessary in a newspaper article. Taking the American experience of the late war in review, the most prominent fact appearing is that, although most of the companies of regular artillery were mounted, either singly or consolidated by twos, they were not as a rule organized as such, or commanded through the war by officers of extended light artillery experience. Those who were light battery commanders previous to the war received increased rank and command in other arms; and those who commanded and fought the regular batteries through the war were, in a majority of cases, officers who entered the Army just previous to or after the war commenced. From the best data at hand it appears that there were in 1873 in the Army of the Potomac 70, in the Army of the Cumberland, 61, in the Army of the Tennessee, 30, in the Army of the Ohio, 10, in Lee's army, 65, and in Johnson's army 65 batteries of mounted artillery. In the Army of the Potomac 28 of the batteries or 40 per cent. belonged to the regular artillery; the number of regulars in the other armies is not known. As a matter of course there were no regular batteries on the Southern side. At the outbreak of the war there were but seven mounted batteries in the Regular Army; nearly all the companies of regular artillery were mounted before it was over. No one claimed during its continuance that the old mounted organizations were superior in efficiency in any respect to those subsequently mounted, and it must be a very poorly informed and biased person who will now assert that a large majority of the volunteer organizations are not equally efficient and reliable as their "regular" brethren.

These facts we hold go to show that there is no difficulty in extemporizing a sufficient force of light artillery

in an emergency and in bringing it to an efficient fighting condition in the same time that a proportionate amount of infantry or cavalry could be made equally effective. Our relative location to the leading military nations of the world, exempt us from the danger of sudden foreign invasion; long before the most powerful nations could land any considerable force upon our shores we could raise and mobilize more than sufficient force to crush the invaders upon our threshold.

It is by no means so clear that if we had the armament (which, thanks first to the inefficiency of our Ordnance Department, and second to the parsimonious incredulity of its necessity, engendered among our legislators by the aforesaid inefficiency, we have not) we could keep even third-rate naval powers from suddenly raiding our harbors and burning and destroying our cities, and obliterating the concentrated wealth that is necessary to carry on a war. The art of safely and efficiently handling a field gun is easily and rapidly acquired. From the nature of things, field guns must be small and of limited variety, and from the days of Guibeaumont down the changes in drill, armament, and ammunition have been comparatively small. This is not so in regard to the immense machines modern progress has rendered necessary to keep at a safe distance powerful ironclads, such as lately bombarded the defenses of Alexandria. In fact, the Alexandria episode well illustrates the importance of capable and well-trained heavy artillerymen. The works were good, and they were furnished with many powerful pieces of artillery; but the knowledge and skill necessary to make them effective were not there, and twelve hours' bombardment compelled an evacuation. It cannot for a minute be supposed that the English would have scored so easy and bloodless a success had sufficient skill been present to work the defensive artillery up to its capacity, or to launch against the ironclads in an effective manner that latest adjunct of the heavy artilleryman, the ever dreaded and efficient torpedo. Some years of experience and observation has taught the writer that the science and practice of heavy artillery defence and manipulation requires years of study and thought, and no inconsiderable amount of hard, practical work in the way of drill and experiment.

We would say to the authorities, reconsider your mistaken orders, and begin a systematic reform that will alike benefit all branches of artillery knowledge; abolish the useless and demoralizing regimental machinery; give a strong and compact organization with an able and responsible chief; consolidate the light batteries at one post; reduce their number and increase their individual strength, and give them a chance to develop to perfection their attractive and dashing peculiarities under one competent commander. Above all, foster, develop and extend the Artillery School at Fort Monroe. Ask Congress to equip it, at least, with specimens of all modern artillery, weapons, projectiles and appliances, and thereby enable our artillerymen to see and realize what will appear against them in case of war. Let them thoroughly educate in theory and practice the artillery of both kinds, and when armies are needed, despite the inefficiency and obstructiveness of the supply department, the Parrots, the Woodbridges, the Hotchkisses, the Gatlings, and others yet unknown, will fill the breach with the productions of their genius, and the honor and integrity of our nation will be defended successfully throughout the long miles of a coast, as well as by well equipped and instructive armies in the interior.

PROGRESS.

#### THE ONLY JUST WAY.

To the Editor of the Army and Navy Journal:

THE important step Congress has taken in reducing the Navy List removes the prospect of promotion within any reasonable time. Thus it destroys ambition and tends to drive the best officers to seek employment elsewhere; while all are rendered discontented, and, therefore, inefficient, on account of their deferred hopes.

However, as the reduction has been thought necessary, we can only try to obviate the attendant evils. The practical remedy is a Star Chamber Board similar to that of 1855, to examine the record of each officer and retire the vicious and incompetent.

This plan of reduction would be positively beneficial to the Navy as a corps; while, if it is considered personally, one prefers to see an incompetent officer retired rather than be driven to resign himself. Those retired would only be a small part of the Navy; so that probably a large number of officers would be in favor of such a measure.

#### HALF PAY LIST FOR THE NAVY.

To the Editor of the Army and Navy Journal:

THE only way out of stagnation in promotion among the officers of the Navy, would seem to be to apply the principle which has been found to work so well in the English army, viz.: To establish besides the retired and active list, also a permanent half pay list. Officers to be retired for age as at present, but divide the present active list into two classes, those in the line of promotion, and those on a permanent half pay list, but assignable to active duty, and when so serving, to receive the full pay of the class of duty as now provided by law.

It is not known whether the ages applied in the English army will apply equally well in our Navy, but they will serve to illustrate the scheme.

A captain who does not receive promotion before the age of sixty years, is placed upon the half pay list, a commander at fifty-five, a lieutenant-commander at forty-eight, and a lieutenant at forty years of age. If necessary the same principle should be applied to the lower grades.

With the rate of longevity found to exist in the Navy, there is no other possible way of reviving a proper flow of promotion therein, or of receiving in each grade a class of officers whose ages are suitable to their grades.







with the barometer, hygrometer and ordinary meteorological apparatus.

This Lone Pine Camp, with part of the apparatus, was then left in charge of Sergeant Dobbin, with a portion of the escort, while the main party with the bolometer, spectrometer, siderostat, actinometers and other pieces, were transported to the mountain. This rose immediately above Lone Pine, presenting the appearance of a wall of granite, which it was necessary to take a long detour to surmount, the mule trains occupying from seven to ten days, to a point whose actual distance was sixteen miles.

The journey lay through a literally trackless wilderness, over country of the roughest kind, and the transportation of the elaborate and delicate apparatus involved great difficulties; it reached its destination with unexpected safety, however, but so much time was consumed in this slow transportation, that it was not until the last days of August, that systematic work commenced on the mountain and observations were made simultaneously with those below.

The actual summit proving impossible to occupy permanently and effectively in the time now left at our disposal, observations were taken there at intervals; but the principal and consecutive ones were at the camp—at an altitude of between twelve and thirteen thousand feet, and about the snow line. We struck our tents on the mountains, and descended on September 11; and breaking camp at Lone Pine also, retraced our steps across the desert, reaching the railroad on the 21st.

At Lone Pine and on the mountain the regular Signal Service observations were made three times daily, with thermometer, hygrometer and barometer, independently of the special observations of the expedition. These latter consisted of—

1. Observations with the bolometric-spectrometer.
2. Three series of observations daily with the actinometers.
3. Of daily photometric observations at Lone Pine with the comparator.
4. Of observations with special nocturnal radiation apparatus, on twelve nights.
5. Of daily observations for time or latitude.
6. Of observations of high and low stars; for atmospheric transmission whenever practicable.
7. Of chemical observations of the amount of carbonic acid vapor in the atmosphere at Lone Pine and on the mountain.

Of observations with the actinometer alone, 120 complete series were taken, each series consisting of 30 readings of the solar thermometer, in sunshine and in shade, and of observations with the bolometer; the galvanometer readings numbered several thousands. These observations were taken under all circumstances, and in temperatures varying from 160 Fah. in the dark tent at Lone Pine, to 20 Fah. upon the summit.

There were none of the conveniences for observation which are attainable at permanent stations. Those at the very summit, at an altitude of nearly 15,000 feet, were chiefly due to Captain Michels, who volunteered that specially trying service, and a life under canvas in such temperatures and at such an altitude, with the rarified air and concomitant mountain sickness made continuous observations difficult. Such difficulties were what we had calculated on, however, and I allude to them only to speak of the excellent spirit shown by all concerned, and which carried us through all obstacles.

We found Mount Whitney all that could be wished for such

a purpose, except for the delays now involved in reaching it, and I have elsewhere expressed the hope that it may be occupied as a permanent station.

Pending the completion of the reductions of the experiments of the expedition, I am able to give an approximate estimate of the solar constant from 2.6 to 3.0 calories, by which it is meant that the direct solar radiation before absorption by the earth's atmosphere, would, in falling for one minute normally upon an area of one square centimeter, raise the temperature of one gramme of water 2.6 or 3.0 centigrade.

A more adequate idea of the true amount of heat involved may be obtained by considering that this implies its ability to melt annually a crust of ice covering the whole earth, and over 150 feet thick.

This value is one-half greater than the received value of Pouillet, and greater than the latest determination of Messrs. Crova and Violle. The Mount Whitney observations led us then to increase the value hitherto accepted for the solar heat.

The result given implies the statement that the heat received directly from the sun is, nevertheless, but a small part of that we experience at the earth's surface, owing to the storage of that heat by the atmosphere. It has long been surmised that without our air the sun's radiant heat would seem greater, but that the earth's surface, as a whole, would be colder.

We may see, in part, what the effect would be, in the absence of an atmosphere, by noting the actual experience of our party in climbing to those high altitudes, where a considerable part of the atmosphere lay below us. As we ascended, and as the air grew colder, the radiant heat, nevertheless, grew greater, so that the skin peeled away from

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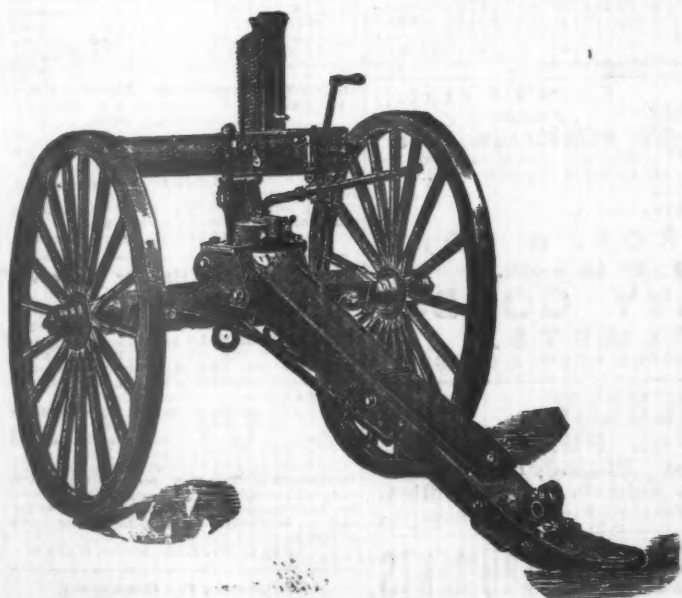
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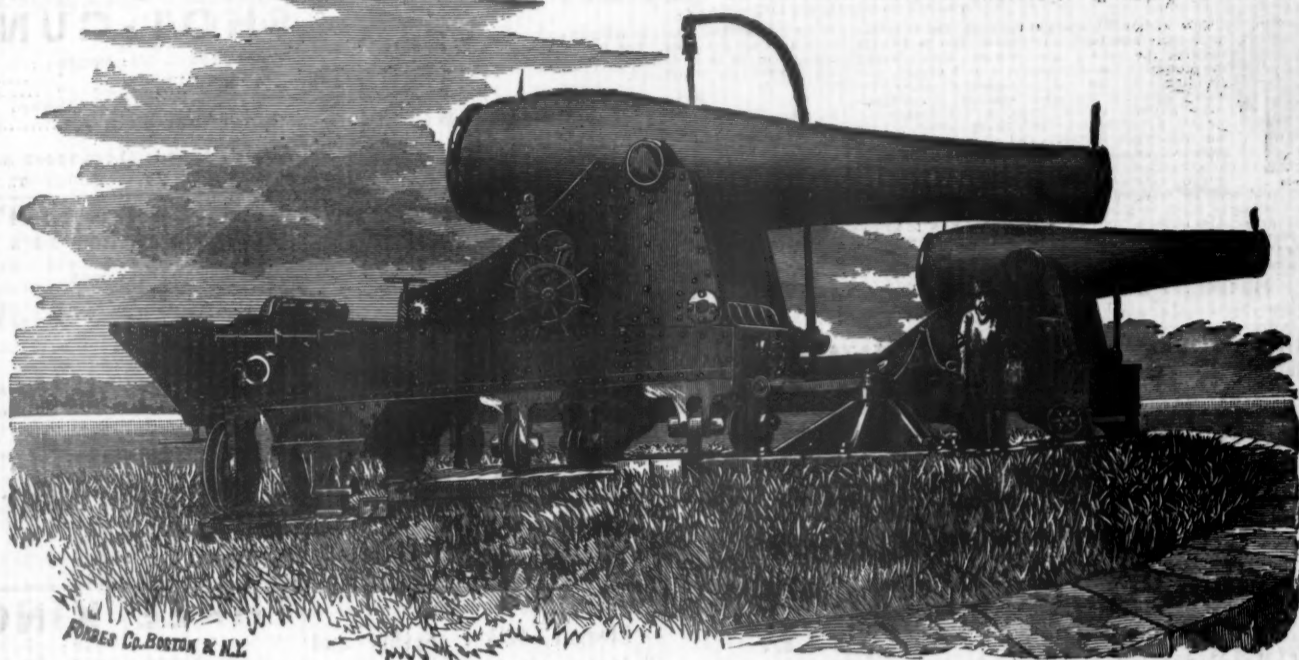
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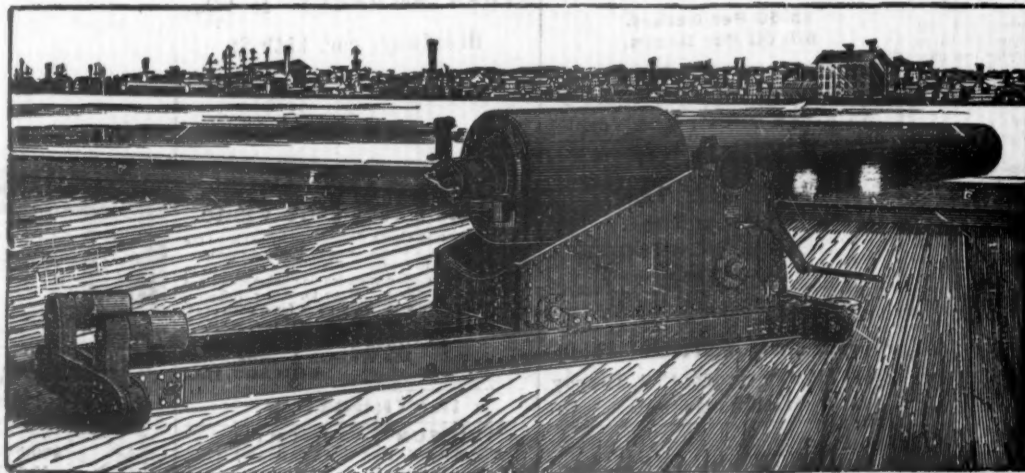
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